mains that these experiments demonstrate that upon the single induction of a condition of high blood pressure a series of pathological changes result that are the exact counterpart of those met with in acute myocardial degeneration and hypertrophies. Furthermore that after such a condition has existed for a long period the myocardium can become functionally normal, with no residual pathology outside of a slight fibrosis. We seem to have here a solace and a warning. All clinicians know of those cases, where after some severe cardiac strain, the symptoms of myocardial insufficiency are rapidly induced and persist for weeks, yet some months later may have entirely vanished. It has usually been assumed that such disturbances were functional rather than organic. In the light of these investigations we can no longer accept this belief. We must assume that the organ is for the time profoundly altered in structure, and that upon the immediate treatment will depend whether this is to be a temporary or permanent change. Also it is interesting to note that innumerable repetitions of the morphological cycle here described would give the exact condition we meet with in fibroid heart (chronic interstitial myocarditis). This condition is often associated with arterio-sclerosis. As the latter is considered by some writers to be the result of over-activity of the adrenals or other collections of chromaffine cells we would obtain a perfect correlation between the effects of one massive dose of epinephrin as given by the experimenters, and the continuous over-stimulation of repeated or continuous hypernephrism.

H. D'ARCY POWER.

SPECIALISM.

An eminent gentleman spoke disparagingly of the modern tendency toward specialization in the healing art. Said he: "The day of the good old family doctor is or will soon become a thing of the past; now every portion of the body is covered by a specialty, except the umbilicus. And even that," concluded the learned one, "is in imminent peril."

We feel that the same plaint might have been made by a disgruntled wise man many centuries earlier. We have not stopped to verify our references, but if memory does not play us false, it is recorded that the specialist Nebsect, an Egyptian priest of the time of Rameses II, got into trouble through his original studies of the action of the heart. Another Egyptian specialist removed cataracts from the eyes of the widow of Cyrus, the Persian, subsequent to the overthrow by Cambyses of the Egyptian Psamtic II, 2000 B. C. Hippocrates forcibly corrected spinal deformities after the manner discovered by Calot in 1894. Celcius, a nose and throat specialist, in the first century of our era, advocated extirpation of the tonsils with the fingers, a method which to-day is considered up to date by English surgeons. And we might continue indefinitely in the same strain.

Our contention is that the tendency to specialize was the inevitable result of problems repeating themselves which called for original thought and recurrent experience, and that without it, scientific medicine must have been impossible. Nose and throat men who are equally expert rectal surgeons, are inspired of sources too remote to assure their doing work of an excellence to satisfy either themselves or their patients.

Lately a man presented himself, several of whose joints had long been swollen. We suspected syphilis. Gonorrhea was admitted, but syphilis denied. We attempted to make a diagnosis by exclusion. One specialist pronounced his sinuses, tonsils and teeth normal; another examined his urine, faeces, blood and internal organs; a third X-rayed him. We were able to exclude tuberculosis and other sources of infection. Finally a fifth specialist, by the so-called Wassermann reaction, verified our suspicion of syphilis. It took us three days to make a diagnosis. An equal number of good old family doctors had been three years making none at all.

We pause to prophesy that specialization will, in the future, be carried to still greater lengths and that mankind will be the gainer thereby.

J. T. W.

IMMUNITY.

In the November 4th issue of the J. A. M. A. appears an article by C. C. Bass, M. D., of New Orleans, entitled "A New Conception of Immunity, Its Application to the Cultivation of Protozoa and Bacteria From the Blood and to Therapeutic Measures."

The author states that "the lysis of protoplasm, either protozoal or bacterial, depends on two substances: (1) Amboceptor and (2) Complement." To the amboceptors are attributed the following properties and functions: (1) they are generally specific, but may become common; (2) they are not destroyed by moderate heat—56° C.—or by considerable heat; (3) they are capable of dissolving large quantities of protoplasm in the presence of sufficient complement; (4) they are inactive in the absence of complement." The complement possesses the following properties and functions: "(1) It is common with reference to antigen; but more or less specific with reference to the source of amboceptor; (2) it is generally supposed that the complement is inactivated or destroyed by moderate heat; as a matter of fact, it is destroyed by any temperature above normal body-temperature (37° C.) and with a rapidity depending on the temperature; (3) it destroys large quantities of protoplasm with specific amboceptor."

The writer asserts that human specific complement does not develop at ordinary fever heat. Hence, bacteriolysis or proteolysis is prevented by local or general temperature.

Applying the above factors or principles to the cultivation of bacteria, the author finds that if blood is drawn from an individual infected with Treponema Pallidum, Bacillus Typhosus, etc., and this is employed as a blood culture at a temperature at or below 37° C., successful cultivation is prevented, because complement will develop and will with the specific amboceptor destroy the bacteria. The complement can be prevented to develop by the addition of bile and then the bacteria will grow. The author claims that by applying these principles he has successfully cultivated in citrated blood and under anaerobic conditions Plasmodium Vivax, Plas-